Crossing Borders Without Crossing Borders: Microcredit in the Field and in the Classroom

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The discipline of Economics, located within a liberal arts education (Colander and McGoldrick 2009), nevertheless focusses its education on algorithmic models to answer societal questions in a prescriptive manner. An example of this involves the lives of the poor universally. From a simple conventional economics perspective, the poor, whether in the form of a country or an individual, are assumed to be there by their own doing. They have simply not been able to rationally and self-interestedly use their limited resources to invest in their future. The solution, often explained mathematically, is for poor individuals (and poor countries) to emulate the rich (developed world) and climb the economic ladder.

Recent work on higher education suggests that a narrow focus on algorithmic tools is incomplete at best because students do not retain most content material beyond their courses. In fact, it has been shown that tackling "big think" open-ended challenges that "invite students and instructors to interrogate arguments, evaluate assumptions, and discover serendipitous connections" (McGoldrick & Garnett, 2013) in a messy and complex world fosters critical thinking and has longer lasting effects. This essay describes how Stetson University used insights from our work with Manio Village in Tanzania to develop a simulation that would engage students in critical thinking skills.

In an economic survey of Manio Village located on the resource-rich slopes of Mount Kilimanjaro, 90% of the villagers responded to the question "Why are you poor?" with a simple answer, "…because we don't have access to capital." When we met them, most villagers were living off less than a dollar a day, and were income- and asset-insecure. If disaster struck, they would have very little, if anything, to rely upon to keep them afloat. Naturally, this led to extremely low-risk and defensive strategies such as hoarding their very small amount of savings informally, rather than saving and investing it, and thereby, exacerbated their vulnerability to adversity. (Narayan, et. al., 2000). This is what economists refer to as non-rational and non-maximising behavior, and ultimately blaming the poor for their own poverty. Stetson offered the Village a small grant of $4500 for economic advancement. The village ingeniously used the money as collateral for larger loans from their local bank. These loans would finance a microcredit lending program that would support the villagers' economic endeavors. Thus began the cycle of economic growth and prosperity! Villagers created an informal credit union that included shareholding, short term deposits, savings, and borrowing, by and for its members. Savings allowed villagers to engage in longer term investment decisions for their children's education and health care. Manio Village is now a thriving economy that is considered a role model in terms of innovation and good governance. See **http://www.youtube.com/watch?v=vKDYUzPhStI.**

The Economics Department in 2008 took a group of students on a service-learning trip to Manio Village to learn, literally, what it means to live off a dollar a day. However, such fieldwork , while a powerful learning experience, is simply not practical on a large scale. Thus, inspired by Manio village, we developed a simulation of the Village without actually crossing geographical borders.

Simulations can be highly engaging for students and provide an experience they are much more likely to remember than a typical class, because one of its goal, paralleling actual experiential learning goals is, "creating memorable experiential learning events that tap into multiple senses and emotions" (Lantis, et al., 2010, p.6).

The simulation is introduced in class immediately after theories of economic development are analyzed. The class represents Manio village and each student is a farmer. For each period, representing roughly one year, between 90 and 110 bushels of maize will be harvested by each farmer. To subsist each farmer must consume at least 90 bushels of maize, allowing a small surplus by the average farmer in each period, assuming no unforseen events. Farmers can either transfer their surplus each period to other farmers in need, consume it, save it, or invest it. Two kinds of investments exist: fertilizer, which costs 20 bushels

and increases productivity by 30% for the next period; and irrigation, which costs 90 bushels and increases productivity by 30% permanently. Farmers see the benefits of saving and investing, and consider the possibly of pooling their resources to do so.

The challenges of this farming community comes with bad luck in the form of floods, droughts, plagues, etc. that can destroy crops, or sicknesses such as malaria that prevent work. Each period (year) a twenty-sided die is rolled twice for bad luck or good luck. Each student is assigned a number from 1 to 20, and if their number comes up, they will lose either half or all of their income, depending on the roll of the die. Any student who ends a particular period with less than the subsistence amount of 90 bushels amount dies in the simulation.

The simulation thus presents students with a real-world-like risky environment in a culturally individualistic society. They see the benefit to investing as well as the risk of getting hit with bad luck in the presence of minimal savings. Many of their initial response to this situation is to try and save/hoard enough to have a "cushion" and then invest to increase productivity. Much like the defensive actions Manio Village before the grant. The problem however, just as in Manio Village, is something beyond their control: whoever has bad luck early in the simulation is in trouble. In that case, students may seek help from their classmates and ask for transfers or loans to survive. In Manio Village, they rely on fellow villagers to help them out. This is referred to as a hand-out in economics, but students soon realize that these are actually hand-ups; necessary help to get them out of their vulnerable economic situations.

After coming to terms with their vulnerability, a microfinance bank is established in the village due to a grant from an outside NGO, again, much like Stetson's grant to Manio Village. The bank loans can finance investment and lend to those hit with bad luck. The students' challenge is to use the resources effectively and ensure that loans are repaid, so the cycle of borrowing and lending continues a win-win process!

The simulation is an intense economic, social, and philosophical experience for students. Even though they come into the simulation with implicit biases in favor of the capitalist work-ethic-success link, they eventually realize the power of luck and strategy in income and wealth outcomes. They also learn to appreciate trust and social cohesion and its importance in economic security and advancement, as in the case of someone hit with bad luck turning to classmates for help. This may or may not be forthcoming depending on the degree to which individualism prevails, so some students "die" in the simulation. Since at least one person dies in the process, students are again confronted with the process of social collateral that permeates Manio Village. At the end of the simulation, comes the most fulfilling part of the simulation. An analysis of the social and economic processes and outcomes of the simulation, and its relevance to critically thinking about society broadly,and the individual within that society, more specifically. An added component to this involves empowering students in determining the distribution of their grades, given the significance of luck in outcomes. They can choose to assign grades based on their net investments, (ranging from A's at the top to D's for those who died) or to assign everyone a 78%. Less radical options include redistributing points based on who has been hit with bad luck, and/or who had helped others the most, and/or who had paid back their loans on time.

Is the simulation effective? Absolutely. While engaging in the simulation, students find it challenging, engaging, and often frustrating. Some actively seek help and work to establish arrangements for some form of social insurance, as in social democracies such as Sweden and South Africa, while others attempt to survive as rugged individualists and risk getting hit with bad luck or chance at becoming the iconic successful capitalist. Some just give up, while others create innovative solutions. What is especially educational for everyone is the degree to which each person questions observed behavior and their assumptions behind decision-making from a narrowly defined rational economics perspective, to that of ethics and morality, for example, whether or not to allow someone to die amidst the plenty of maize. The causes and consequences of development and poverty are especially brought to life. Many students do not typically associate economics with grant-based poverty reduction programs to overcome poverty and uncertainty. Amidst all this debating about ideal processes and outcomes, students realize that uneven economic growth is a reality made evident by those individuals and countries who are able to invest early and avoid the inevitable bad luck. Moreover, they grapple with how being brought up in a poor household

or country creates disadvantages and vulnerabilities that is cumulative and compounding, and inevitably bring up issues of ethics and social justice. Inequality, unequal development, asymmetric ownership and political power are all complex and challenging forms of cause and effect in development economics, and no Economics textbook can accomplish so much in such a short period of time.

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